

Appl. No. : **Unknown**  
Filed : **Herewith**

or a derivative, homologue, analogue, chemical equivalent, antagonist or agonist thereof for a time and under conditions sufficient for the modulation of osteoclastogenesis.

2. (Amended) [A]The method according to Claim 1 wherein the leptin or its derivative, homologue, antagonist or agonist comprises an amino acid sequence having at least 60% similarity to the amino acid sequence set forth in [~~400~~7]SEQ ID NO:7 after optimal alignment.

3. (Amended) [A]The method according to Claim 1, wherein the leptin or its derivative, homologue, antagonist or agonist is encoded by the nucleotide sequence set forth in [~~400~~8]SEQ ID NO:8 or a nucleotide sequence having at least 60% similarity to [~~400~~8]SEQ ID NO:8 after optimal alignment or a nucleotide sequence capable of hybridizing to [~~400~~8]SEQ ID NO:8 or its complementary from under low stringency conditions at 42°C.

4. (Amended) [A]The method according to Claim 1 [**or 2 or 3**] wherein the modulation comprises a reduction in bone resorption.

5. (Amended) [A]The method according to Claim 4 [**for the treatment**]wherein said bone resorption is a result of osteoporosis or Paget's disease.

6. (Amended) A method for inhibiting, reducing or otherwise delaying onset or progression of bone resorption in an [**human or**] animal, said method comprising administering to said [**human or**] animal an effective amount of a leptin or a derivative, homologue, analogue, chemical equivalent or agonist thereof for a time and under conditions sufficient to inhibit, reduce or otherwise delay onset or progression of osteoclastogenesis.

7. (Amended) [A]The method according to Claim 6, wherein the leptin or its derivative, homologue, antagonist or agonist comprises an amino acid sequence having at least 60% similarity to the amino acid sequence set forth in [~~400~~7]SEQ ID NO:7 after optimal alignment.

8. (Amended) [A]The method according to Claim 7 wherein the leptin or its derivative, homologue, antagonist or agonist comprises an amino acid sequence have at least 60% similarity to the amino acid sequence set forth in [~~400~~7]SEQ ID NO:7 after optimal alignment.

9. (Amended) [A]The method according to Claim 6 [**or 7 or 8 for the treatment**]wherein said bone resorption is a result of osteoporosis or Paget's disease.

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Concluded  
10. (Amended) A composition for modulating bone resorption, comprising a leptin [or a derivative, homologue, analogue, chemical equivalent, antagonist or agonist thereof] having at least 60% similarity to the amino acid sequence set forth in SEQ ID NO:7 and one or more pharmaceutically acceptable carriers and/or diluents [when used for modulating bone resorption].

13. (Amended) A method for inhibiting osteoclastogenesis in an [human or] animal, said method comprising administering to said [human or] animal an amount of a leptin or a derivative, homologue, analogue, chemical equivalent or agonist thereof effective to antagonize the osteoclastic effect of osteoclast differentiation factor (ODF) by stimulation of Osteoprotegrin (OPG) and/or inhibition of receptor activator of NF-kappa  $\beta$  (RANK) expression.

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14. (Amended) [A]The method according to Claim 13, wherein the leptin or its derivatives, homologue, antagonist or agonist comprises an amino acid sequence having at least 60% similarity to the amino acid sequence set forth in [<400>7]SEQ ID NO:7 after optimal alignment.

15. (Amended) [A]The method according to Claim 13 wherein the leptin or its derivative, homologue, antagonist or agonist is encoded by the nucleotide sequence set forth in [<400>8]SEQ ID NO:8 or a nucleotide sequence having at least 60% similarity to [<400>8]SEQ ID NO:8 after optimal alignment or a nucleotide sequence capable of hybridizing to [<400>8]SEQ ID NO:8 or its complementary form under low stringency conditions at 42°C.

16. (Amended) [A]The method according to Claim 13 [or 14 or 15 for the treatment of] wherein said bone resorption is a result osteoporosis or Paget's disease.

Please add the following claims:

- a<sub>4</sub>
17. The method of Claim 1 wherein said animal is a human.
  18. The method of Claim 6 wherein said animal is a human.
  19. The method of Claim 13 wherein said animal is a human.

### REMARKS

The claims have been amended to conform to the rules of practice specified by the U.S. Patent and Trademark Office. Claims 11 and 12 have been canceled. Claims 17-19 have been added. No new matter has been added herewith. As a result of this Preliminary Amendment, Claims 1-10, and 13-19 are presented for examination.